DOCUMENT RESUME

ED 079 757 CS 200 649

AUTHOR Hsia, H. J.
TITLE Supranational and Supracultural Communication Research; A Plea for a Worldwide Supranational Communication Center.
INSTITUTION Texas Tech Univ., Lubbock. Dept. of Mass Communications.
PUB DATE Aug 73
NOTE 65p.; Paper presented at the Annual Meeting of the Association for Education in Journalism (Fort Collins, Colorado, August, 1973)

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Clearinghouses; *Communication (Thought Transfer); Communication Skills; Information Dissemination; *Information Theory; Intercommunication; International Organizations; *International Programs; Journalism; *Research and Development Centers; Systems Approach; Systems Concepts
IDENTIFIERS *Supranational Communication Research Center

ABSTRACT

Because of the importance and the internationality of mass communications, it has become necessary to study this phenomenon on a global scale. An organization for Supranational Communication Research, located on each of the continents, could act as a clearinghouse and patron for world-wide communication study. That is, in order to guide the emergence of a world culture, it is essential to ascertain the effects, processes, patterns, and dysfunctions of mass communication in all possible supranational and supracultural settings and on a global scale. It is therefore imperative to establish supranational communication study centers. Such coordinated work could investigate primary problems, act as a nerve center for studies in other locations, and design principal programs in theory, general systems research, model- and systems-building, and applied research. (CH)

FILMED FROM BEST AVAILABLE COPY

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED 079757

AR 000 674

ED 079757

Supranational and Supracultural Communication Research

A Plea for a Worldwide Supranational Communication Center

H. J. Hsia
Department of Mass Communications
Institute for Mass Communications Research

"PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY
H. J. Hsia
TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."

Presented to the
Association for Education in Journalism Convention
Fort Collins, Colorado, 1973

Supranational and Supracultural Communication Research

A Plea for a Supranational Communication Research Center (SCC)

H. J. Hsia
Texas Tech University
Lubbock, Texas

ABSTRACT

Communication, as much as science, observes no national boundaries, nor barriers of culture, race, color or creed. Mass communications as a vital catalyst shapes the development of every nation and also the future of the world. When imaginatively planned and effectively used, mass communication is capable of promoting understanding among nations and races, and vastly enhancing the possibility of a "world culture" emerging from the current communication revolution.

In order to guide the emergence of a world culture, it is essential to ascertain the effects, processes, patterns, as well as possible dysfunctions of mass communication in all possible supranational and supracultural settings on a global scale. It is therefore imperative to establish a supranational communication center (SCC), under which five or more regional communication research centers would initially operate at strategic positions around the world to cover Europe, Asia, North and South America, Africa, and the Middle East.

The Center's activities are described under three major categories: Development, Dissemination, and Research. Development activities are essentially the complement of research functions. A concise development plan has been worked out so as to present a clear picture of the problems and possible solutions in appropriately phased stages, and also to coordinate development with research operations. Operationally, the Center acts as the nerve center for supranational and supracultural research and studies; as a data-center for communication scholars, students and concerned persons, and also as a promotion center for furthering supranational cooperation. The principal research programs are primarily concerned with: first, theoretical research: general systems research on supranational communication, including theoretical formation, and model- and systems-building in terms of both microscopic and macroscopic approaches; second, studies on the kinetic, fermentation, modernization, immunization, and selection processes of supranational communication; and third, applied research, including the establishment of a network of systematic survey research labs and experimental labs. The purpose of the center's dissemination is to solicit cooperation from the world's research community and interested persons and organizations to actively participate in the center's research and develop-

ment activities. No less important is the aim of avoiding costly redundant and duplicate research. Numerous other problem areas and promising areas are also discussed thoroughly.

Admittedly, there are enormous difficulties and herculean tasks ahead; however, the time is right, the atmosphere is right, for such a global endeavor.

Only by Daring to Dream the
Impossible Dream Can It Ever Come True --
H. J. Hsia

PROBLEM AREAS

Much more than simply crossing international boundaries, international communications transcend language barriers, obviate academic disciplines, encompass every field of science and humanity, involve every society and nation, accelerate modernization, and help bring about a world culture which is almost a reality now. In view of the detente between the West and the East, and the shifting trend from military confrontation to economic competition, to economic cooperation, international communications seem to be the most important of all international endeavors in the promotion of international understanding and cooperation; however, international communication is like the weather -- everyone talks about it, but no one does anything about it, that is, no one except the members of ICA and AEJ.

"Above nations, humanity" has been the rallying cry of the international community; likewise, communications are also above nations; therefore, it seems inadequate to express communications among nations as international communication. Supranational communication, a term defined by Fischer,[17] seems to be more appropriate. The objectives of supranational communications are not merely the understanding of the phenomena of supranational communication, but the functions and effects of supranational communications upon modernization of the developing nations, and upon world cooperation and peace through communications.

Clearly, no research in any field is more dynamic, promising, or meaningful than supranational communications. International communications scholars have phenomenally advanced the knowledge of supranational communication, but somehow failed to establish it as a science, because of the existence of an abundance of conflicting evidence. The state of communications research today seems to be full of vitality and also of controversies, partly due to the divergent orientations and interest of the research organizations and the researchers, and partly due to a lack of coordination among scholars of different disciplines. In media and attitudinal research, for example, controversial findings can never be exhausted as new controversies appear. The major culprit in this situation is undoubtedly the lack of synthesis and integration of theories and findings. There seems to be a desperate need for a general communications theory.

Theoretical Problems

A general systems theory that integrates all theoretical communications models and systems should be highly desirable. The synthesization of all possible theories into a compact whole raises grave doubts in the minds of behaviorists, political scientists, sociologists, and communications students, as sciences thrive on controversies and diversities; however, that does not preclude the desirability of formulating a general communications theory, universally applicable to all cultures, so as to coordinate efforts of various disciplines. There is no evidence that any general theory has ever been offered, nor any indication that such endeavor is being undertaken in the realm of international communications. As no two communications are the same when environment,

time, communicator and communicatee, among others, are taken into consideration, one of the primary problems seems to be the definition of communications. Communications, broadly defined, is the transference not only of information "but also knowledge, error, opinions, thoughts, ideas, experiences, wishes orders, emotions, feelings, and moods," and "the expression of feelings, wishes, commands, desires, or whatever it may be," and "it covers all deliberate uses of language [signs, symbols, and signals] by human beings as well as voluntary or involuntary exclamations, movements, gestures, sighing, crying, laughing, dancing, insofar as they are informative." [3]

The difficulty of building a general communications model and theory is understandably very complex. Among various communications theories and models examined, no theory is valid all the time, or applicable to all cultures and situations. Information theory may offer the best prospects as a basis for formulating a generalized communication theory. First, it presents a uniform terminology[2] adaptable to all cultures. Second, it is logically consistent and mathematically rigorous.[42] Third, it specifies a robust way of quantification of information (entropy or uncertainty), and points out a possible way of measuring the meaning and value of information.[4] [18] And fourth, it provides a culture-free launching pad for a general systems basis for a general communication theory. In the absence of a communication theory acceptable by all disciplines, communications researchers generally attempt to find out functions and relations of five factors as enunciated by Lasswell.[29] There is no evidence that any acceptable, generalized theory

concerning the difference of media has been offered, despite the fact that experiments and studies seeking to resolve the theoretical problems, for example, regarding the differential efficacy of various media, have reached such proportions that the compilation of a reasonably complete bibliography is yet to be done. Furthermore, studies on the effectiveness of media, communication, and audience, with respect to attitude change or others, are seldom in agreement with one another. Scholars of different perspectives use different approaches; consequently, diametrically opposite findings result.

Indeed, controversies have appeared at an ever-increasing rate in support of both sides of the arguments concerning the applicability of a certain theory. This may not be a liability to communications research, for diversified approaches and findings are essential to building and verifying a communications theory and furthering communications as a science.

To further exemplify the problem, the definition of communications media has a great deal of disparity. Doob[13] distinguishes two very broad categories of media: basic and extending media. The classification is dependent upon the presence or absence of the communicator. Wiebe[47] restricts the term "media" to communications which are readily available to most of the public; Klapper[27] in addition to mass communications media, includes personal transmission media. Generally following the definition of Wiebe and Klapper, Hovland[22] surveys the whole field of the effects of mass media. Expanding the model of "who says what in

which channel to whom with what effect," Lasswell[29] takes a functional approach to identify four factors that determine communications effects: the communicator, the communication, the medium, and the audience. The functions of the media, Hovland states, are: attracting an audience, conveying information, changing opinion and attitude, and inducing action. Based on these functions, Hovland argues, the difference in media effects can be tested.

Similarly in communicator research, the credibility of the communicator has aroused many arguments over the effects, influence, and action-arousing abilities of the communication. The field of communication effects has been most extensively studied, but abundant controversies are also found in this area. Hovland and his associates[24, 21, 20, 25] were probably the first to systematically study communication effects with varying conditions, communications, communicators, and experimental techniques. A few conclusions can be drawn from their findings, such as communication effects in relation to personality, persuasibility, credibility of communicators, two-sided versus one-sided argument, primacy and recency, etc.

PROBLEMS CONCERNING EXPERIMENTS AND SURVEYS

However, the issues involved with communication seem far more complicated than those first anticipated, for no definite conclusion can be reached without specifying the conditions under which the experiment was carried out. No area seems to be lacking in conflicting findings, for example, one-sided vs two-sided, primacy vs recency,

to conclude vs not to conclude, one-step vs two-step vs multiple step flow theory, and sex, among many others. Conflicting evidence, like the German Mark after World War I, has been proliferating, and as a consequence, devaluating. Therefore, a general systems theory is called for, not necessarily as a panacea, but as a working system for the systemization of findings and theories.

Communications, culture and personality interact. Factors and variables in such interaction can hardly be exhausted; exhaustiveness is never a problem in science, though it does present a problem in dealing with the parsimoniousness of science. We need only look at sex as a variable to illustrate the problem. Every modern society is today a patriarchal society, but any similarity ends at the appellation. Women are more persuasible than men, as women are more culturally conditioned. When interaction between the communicator's sex, environment, and subject's sex was brought into light, Cieutat[10] found significantly different interaction. Exline[14] substantiated the findings of Anastasi[1] that women may be more person-oriented, or people-oriented, therefore, are more easily persuaded. Marston and Levine[33] found them more interaction oriented, Wittenborn[49] confirmed the difference in sex roles, Hovland and Janis[24] the communication and culture interaction in which differentiable patterns of behavior emerge. Behavioral patterns are of course one of the major topics of cross-cultural studies.

It may be appropriate to assume that all audience, communicator, personality, effect, and media research in one way or another measures the effects of communications as its primary objective. In addition to the difference of media, channel, and communicator, communications

effects are also to a large extent determined by the personality and predispositions of an individual[46] and to no less an extent by the media and source of communication. But how far these research findings can be generalized across cultures is a question of fundamental importance.

Admittedly, many studies in communications research are conducted on the basis of culture-free theories such as dissonance theory[16], congruity theory[37] and immunization theory.[34] But only a few studies have taken into account cross-cultural differences in an international and cross-cultural setting -- consideration of which obviously leads to still more complications. Furthermore, research in international communication is done mostly on a piece-meal basis. Coordinated efforts have been sporadic.

The proposed Centers are to coordinate major international communications research so that research should be carried out on a systematic, long-term basis. Strenuous efforts must be made at updating all possible demographic data, as the continuation and expansion of comparative studies on an international scale. With due respect to pioneer workers in this field, more extensive studies, not only about the change of the traditional society as a result of mass communications, but concerning all ramifications of influence and effects precipitated by international information flow should be attempted.

Clearly, international communications research should progress as a cooperative research effort. Effort should not be directed at communication effects exclusively; related areas such as sociology, psychology, economics, political science, philosophy, cybernetics,

anthropology, physiology, and many other relevant disciplines ought to be allowed to contribute to international communications research. Some existing research findings can be seen in the works of Lerner,[31] Klapper,[28] Schramm,[40] Pye,[39] Davison,[11] and Schramm and Lerner[41] among others. In these works, emphasis has been placed upon the modernization processes and nationalism as well as the effective use of mass media.

The development of international communications research quantitatively leaves much to be desired. In a qualitative sense, some pioneering works indicate the proper direction in which international communication research should evolve. The general areas of international communicatiion research are well compiled, for example, in a Michigan State University Study[38] entitled "A Preliminary Bibliography of Communication and the Development of Nations."

Most recent studies are centered on: (1) theoretical exploration; (2) political communications; (3) media research; (4) international news flow; and (5) effects and functions of mass media and international communications. Judging by these studies, the primary task for international communications research remains the working out of a systematic, generalized theory of communications, rigorously tested and "proved." Experimental research, field survey and observations methods may be integrated to reach the desired objectives. With regional centers possessing a collection of demographic data and other vital statistics, and research facilities in both the United States and abroad, it is possible to carry out, on a large scale and on a continuous basis,

comparative studies of different regions. All processes of modernization, development and communications that can be closely recorded, tested, and compared, if not controlled, may thus be known.

Problems Concerning Promotion of Communications Between Rival Blocs

Time is never more right than now to plan on a long term basis communicational promotion between rival power blocs in the world. Communication, as study after study has found, tends to increase mutual understanding, to eliminate suspicion, to reduce racial, ethnic, and religious biases, and thus to help assure international cooperation and world peace.

Some drastic steps, it seems, must be taken to rectify the situation where propaganda has been the major form of communication between rival nations and rival power blocs. Governments of all doctrines and inclinations must be persuaded to permit a great deal more freedom for the flow of information. Mass media in all lands must be encouraged to orient itself more toward world order and world culture; concerned citizens and institutes of the world must be approached for cooperation in dissemination of the facts and figures without prejudice, and mass communication professionals must be encouraged to report, publish, and broadcast more, and more objectively about foreign nations and other peoples.

Extensive discussions and meetings must be held with various international scholars and media practitioners before some fruitful results can be obtained. Therefore, for this vital SCC endeavor, no detailed plan is to be laid out, except that every avenue of communication for the promotion of international understanding and world peace must be thoroughly explored.

Problems Concerning Modernization and Development of Emerging Nations

Some brilliant pioneering work has been done on the interaction of communications processes and modernization processes in emerging nations. Since no systematic study has yet been undertaken, the lack of a concerted attack upon problems of international communications makes it appear that we have been conducting guerrilla warfare, resorting to ambush and skirmish to achieve a technical victory as the opportunity presents itself.

The world today is not only bipolarized or multi-polarized politically and ideologically, but polarized economically. The gap between the "have" nations and the "have-not" nations is widening at an alarming rate, due to the uncontrolled increases of population and the slow rate of agricultural and industrial development. Increased amounts of communication may not bring about increase in production; however, communication is known to help facilitate the processes of modernization in the form of increasing literacy, urbanization, social mobility, or as Lerner expounded, "Empathy," the results of the multiplying functions of mass communication.

On the surface, the relationship between communications and modernization is implicit. The development of mass communication facilitates modernization processes which in turn help improve and develop mass communications media and diffusion. More latent, however, is mass communication as an instrument to effectively shape and change the aspirations of the people; to establish their national identity and pride; and to

improve the economic lot of the society.

In all developing nations, communication is closely interrelated with modernization and industrialization. It is thus necessary to carefully examine the interactions of communications with other factors. The argument over whether modernization precedes the communication development, or whether the communications network causes the modernization processes is relatively unimportant. What is most important to communications research in this respect are the effects, influence and functions of communications, all forms of communications, with respect to the development and modernization processes. More specifically, how does communication influence and shape national aspirations and goals, and how does it affect the rising level of education, the living standard and democratic processes? But before one can examine the effects of communications, one must know the phenomena of communications flow; the amount of information, the loss of information (equivocation), the noise (ambiguity, error, and mistakes introduced in communications transfer), the redundancy (both the redundant content and channels) and the cost involved in information transmission and reception. These processes are termed kinetic processes, to which we will return later on.

Solutions to these problems lie in the organization of a talent pool to be provided with necessary finances and facilities to engage in a well-thought out plan systematically attacking the problems. Not incidentally, it is also an attempt to answer numerous questions raised by Schramm[41] concerning modernization, communication and change.

DEVELOPMENT ACTIVITIES

Priori Development Organization

Development activities essentially encompass both research and dissemination activities. A development chart has been worked out for two major purposes: first, to present a clear picture of the problems and possible solutions for physical development of a five-year phased plan; and second, to coordinate research and developmental activities. Basically, there are three difficulties, not listed in the order of importance; first, difficulties in financing the SCC and regional centers on a permanent basis with incremental budgeting support in proportion to the growth of the centers; second, difficulties in diffusion and dissemination of research information and findings with minimum cost and time lag; and third, difficulties in determining research and development priority. For these three difficulties, four separate but coordinating committees are to be established: the Planning Committee, the Finance and Resource Committee, the Research Committee, and the Evaluation Board.

Formation of the Planning Committee (Board of Directors)

The committee consists of nine members nominated and selected among scholars from international communication, political science, economics, sociology and other disciplines. They are entrusted with the responsibility of overall planning for and coordinating of the SCC worldwide research, development, and dissemination activities. The nomination procedure may be undertaken by one of the internationally known organizations such as the ICA. The primary consideration should be given to

Supranational Communication Center

Organizational Developmental Plans and Time Table

Operation	YEARS 1	2	3	4	5
Priori Development					
Establishment of Planning Committee	**				
Resources and Finance Committee	***				
Development Committee	***				
Study of Center Locations	**	*			
Establishment of the Evaluation Board	**	*			
Selection of Key Personnel	**				
Priori Research					
Priority of Research		***			
Taxonomical Study		***			
Studies on Communications Systems & Models		***	*		
Collection of Basic Communication Data		**	****	****	****
Data Retrieval System & Updating System		*	****	****	****
Regional Development					
Location Resources Studies		****			
SCC (Asia)		***			
SCC (Latin America)			***		
SCC (Africa)				***	
SCC (Middle East)					***
SCC (Europe)					***

(Time Table, continued)

Operation	YEARS 1	2	3	4	5
Developmental Activities					
Establishment of International Libraries	****	****	****	****	****
Establishment of Data Archives		***	****	****	****
Information Clearinghouse and Referral Service		*	****	****	****
Microfilming and Recording Service			****	****	****
Exchange Programs for Students			**	****	****
Exchange Programs for Scholars				**	****
International Symposiums and Conference					****
Dissemination Activities					
Setup for Dissemination Committee	**				
Selection of Editorial Staff	*	**			
Securing Printing Facilities		**			
Publication of Monthly Bulletin		***	****	****	****
Publication of the Monograph		*	****	****	****
Counseling Service			****	****	****
Microfilming & Recording Distribution Service			**	****	****
Data and Research Service				****	****
Special Distribution of Findings			*	*	*

(Time Table, concluded)

Operation	YEARS 1	2	3	4	5
Research Activities					
Systematic Studies on Rival Bloc Communications		**	****	****	****
Studies on Communication Effect on Modernization			****	****	****
Other Studies Designated by Research Committee			**	****	****
Establish Supranational Communication Survey Labs			**	****	****
Establish Supranat'l Experimental-Communication Labs				**	****
Evaluation Activities					
Continuous Evaluation		****	****	****	****
Evaluation Report		*	*	*	*

equitable representation of all religions, races, creeds, doctrines, and political affiliations, if possible. In this respect, the committee may work on the principle that the SCC shall never be dominated by any one nation, or group of nations politically allied, nor by any academic discipline, so as to make its composition of members as all-inclusive as possible.

The Committee when established should immediately undertake the task of working out a comprehensive five-year development plan, and in the meantime, the committee may also progress to the establishment of the Board of Directors, which is to be the governing body of the SCC. The primary responsibilities of the Board of Directors are: (1) to plan and coordinate various activities of the SCC and its regional centers; (2) to oversee the overall activities of the SCC and its regional centers; (3) to determine the selection of the personnel of the SCC and its regional centers; (4) to appropriate funds and supervise the use of funds; and (5) to take appropriate actions on the basis of the report of the Evaluation Board, an independent board to be formed at a later date.

Formation of the Development Committee

Members of the Development Committee shall be selected from persons with reputed organizational skills from different nations and different disciplines. They shall be nominated and elected by the members of the Planning Committee. Their primary tasks, in addition to the organization of the SCC World Center, include: (1) studies on the location of the SCC World Center, and the number, size, location, functions of

its regional centers; (2) studies on the establishment of international communication libraries to be located at communicatively strategic centers in the world; (3) systematic compilation of communication related publications; (4) establishment of communication data archives; (5) studies and implementation on communication data retrieval systems and updating systems; (6) studies on the microfilming and recording service accessible and available to all bona fide nations, organizations and individuals; (7) studies on the information clearing and referral services; (8) feasibility studies on the exchange of international communication scholars and students; (9) feasibility studies on setting up international symposiums, conferences, meetings and lectures; and (10) studies on the SCC dissemination activities and coordination of regional dissemination activities.

The tasks the Development Committee is to be engaged in are numerous; therefore, it is proposed to form subcommittees for various developmental activities. Thus, the composition of this committee may be largest of all committees to be formed. No arbitrary number of members is to be set; the number will be primarily dependent upon activities and operations assigned by the planning committee. Members of the Committee select their own chairman, who is also a member of the Planning Committee (the Board of Directors later).

Formation of the Resources and Finance Committee

Many worthy projects lie dormant, or dead and buried, without ever having made any meaningful contribution to mankind; therefore, particular attention must be paid to finances and resources to secure continuous

support essential for the survival and development of the SCC. The Planning Committee is entrusted again with the responsibility of inviting expert fund raisers to join the Resources and Finance Committee. The Resources and Finance Committee is to function on three different fronts simultaneously: first, to explain the activities, purposes, and objectives of the SCC to potential donors, and to solicit their support on a permanent basis, such as endowments and trusts; second, to stage annual campaigns to solicit funds from donors the world over; and third, to supervise and oversee various expenditures of the SCC.

No number of members is set, as the Committee must function as an independent unit in cooperation and coordination with the Planning Committee, the Development Committee, and the Research Committee in its various activities. The Committee selects its own chairman, delegates authority to its members, and oversees its own activities. Its chairman is a member of the Planning Committee (the Board of Directors later).

Formation of the Research Committee

The Research Committee consists of members chosen from among internationally renowned scholars in various fields related to mass communications, human communications, and international communications by the Planning Committee, and later the governing Board of Directors. Within the Research Committee, there may be subcommittees in the following areas: Subcommittee for Theoretical and Basic Research, including systems research; Subcommittee for Applied Research, including promotion of communication between rival blocs of nations, and studies on

modernization processes by communication; Subcommittee for International Cooperative Research; Subcommittee for Regional Research; and others that may be composed at a later stage. All these subcommittees' functions and activities must be coordinated with the Development Board.

The Committee is to initiate both macroscopic and microscopic research, to direct research effort both in building communication systems and theories and in searching for new direction in international understanding and for the promotion of world peace through communication. Major research emphasis should be placed upon the promotion of communication between rival power blocs, and upon the modernization processes as influenced and brought about by communication.

The Research Committee is also charged with the responsibility of establishing an international survey research laboratory, and international experimental laboratory, with the cooperation of the Development Committee. In addition to providing guidance and assistance for the establishment of the SCC regional centers, the Committee is also to direct and coordinate research efforts by regional SCC centers throughout the world.

The chairman of the committee, an ex-officio member of the Board of Directors, is to be elected by its committee members.

Formation of the Evaluation Board

The evaluation board consists of eleven members from two sections of the supranational community; apart from its chairman, memberships are to be evenly divided between the academic world and the non-academic

world. The board is an independent, supervisory unit, responsible to guidelines laid down by itself, and routing the evaluation report to the Board of Directors and also to members of various committees.

The board is to critically examine all activities of the SCC, and to issue its own report of findings annually. Adequate staff assistance will be provided to assure the Board's carrying out its work effectively. From time to time, the Board may assess and reappraise the effectiveness of the SCC's activities. In addition, the SCC (Central) will join with the Board on a constant and continuous basis to evaluate various operations, activities and facilities of all centers.

FACILITIES AND SERVICE DEVELOPMENT

Establishment of International Communications Libraries

With the exception of a few well-stocked libraries, libraries the world over have a deplorable lack of communications literature. Even in the famous large university libraries, the collection of communication literature is hardly up to the standard required for systematic, international communications research. In order to promote international understanding and to facilitate international research, a network of international communications libraries is a necessity. Relevant journals should be obtained and properly indexed according to subject matter, name of author, and title. Relevant books and other publications, not only on communications, but also on the history, politics, economics, sociology and religions of each society and country, should be collected and indexed to facilitate international communications

research. The first library is to be set up at the SCC in the United States (SCC, USA), the second in Asia, and so on. Each SCC regional center is to maintain a library as part of its standard operation.

Systematic Compilation of Communications Publications

A great deal of valuable data is lost simply because there is no facility to store, index, file and retrieve the information. It is therefore suggested that the SCC libraries undertake the task of working out an information storage and retrieval system for international communications information when such a plan is feasible in terms of facilities, finance and personnel. In the meantime the compilation of major publications and broadcasts ought to be simultaneously carried out. World-wide requests may be to mass media and governments for publications, data and other relevant information. Such systematic compilation has in mind the eventual establishment of international data archives in various parts of the world.

Microfilm and Recording Service

Another important task for the proposed SCC Libraries is to microfilm major publications and record major news broadcasts by radio and television for future reference and research. This task can be delayed, but should be postponed no longer than the third year of the SCC's operation. Microfilms and recordings will be furnished to any bona fide research institute at cost upon request. The selection of microfilms and recordings will have to be worked out at a later date. All relevant data, such as any socio-economo-political data, will be entrusted to the libraries for classification and safekeeping.

Exchange Programs for Communications Students, Scholars and Information

One of the most important steps in promoting international understanding and dissemination of information is the exchange of communications students and scholars. The possibility of establishing and maintaining a scholarship fund should be explored, and programs for the exchange of scholars and students formulated. SCC will perform three services under this category: (1) offer international scholars opportunities to study at a given locality on communications and modernization, and also select graduate student candidates as assistants for studies in various selected countries; (2) make available SCC facilities and information to any communications research institute, university, and the world; and (3) exchange research and development information with other institutes. The exchange of scholars and students program is not necessarily confined to communications scholars and students, but may also include students in all related areas of communications, such as anthropology, biology, electronics, physiology, psychology, cybernetics, economics, sociology, and political science.

Information Clearinghouse and Referral Service

Miller and Barwind[36] suggested HIRC, Human Communication International Consortium, with the objectives of increasing the accessibility of international research information and data, and creating a clearinghouse for their dissemination. By going one step further, the SCCs may establish a referral service in addition to the information clearinghouse, on the consideration that it is an almost impossible

task to collect and store all information a researcher may need.

In the referral service, requests for information will be referred to the appropriate institute, organization, or government concerned. Prior to the establishment of such a referral service, it is necessary to make certain of the information availability and accessibility of each institute, organization and government. The referral service should be incorporated in the data retrieval systems. Information requests will be referred to other organizations only when the SCC does not have such information available.

International Symposiums, Conferences, Lectures and Meetings

The Centers shall offer staff lectures (a single lecture and/or a series of lectures) to any interested institute or group. The arrangement for the presentation of lectures will be made within each region. A symposium can be tentatively scheduled for each region every year. Scholars of diversified disciplines will be invited to take part and/or give presentations in the symposium. The symposium may be co-sponsored by the Centers with an educational institute in the region. The date, the length of time, and the place of symposiums shall be arranged when the development activities of the Centers are under way. Conferences on particular topics may also be staged from time to time. The topics of symposiums and conferences are to be mainly concerned with the development and modernization processes of any region; particular attention must be paid to the relation between modernization processes and international communications.

Collection of Basic Data and Data Archives

Basic data refer to demographic data such as population, population growth rate, education, industry, electricity, transportation, radio and TV sets, newspapers, periodicals, income, among others, in addition to research findings. These data are to be available to the world public. Data collection is to be the major activity prior to the establishment of a data archive, and is to be closely coordinated with other research activities. The collection method first consists of compilation of newspapers, governmental publications, and other printed matter. A systematic model and filing system is to be established; then a computer retrieval system can be attempted. Many existing compiling and retrieval systems, with slight modification, can be readily adopted. Basic data collection is the primary operation of any successful research project, particularly in an international setting, and must be maintained on a permanent basis.

Development of Regional Centers

The organizational development is scheduled tentatively in five phased stages: (1) The SCC (Central) may have its headquarters in the United States, where research facilities are more readily available, so that a proto-model for the establishment of SCC centers elsewhere can be built. However, it does not preclude consideration of other possible Center locations.

The Planning and Development Committees are entrusted the task of determining the locations of SCC (Central) and regional SCCs.

For the sake of eliciting meaningful discussion, the following locations for regional centers are proposed. SCC (Asia) may be set up in either Tokyo or Hong Kong. Both may begin operation in Year 2; SCC (Latin America) in either Mexico City, Mexico, or Quito, Ecuador, in Year 3; SCC (Africa) in Lagos, Nigeria, in Year 4; SCC (Middle East) in Beirut, Lebanon, and SCC (Europe) in Paris, or London, both in Year 5.

These locations have been chosen not only for their geopolitical importance, but also taking into consideration the availability of trained personnel, existing research facilities, possible cooperation with regional higher educational institutes, and most important of all, their political stability. Alternative sites should be considered and evaluated in the phased stages of the development of SCCs. These locations, tentative as they are, seem to present the most promising sites for international communications research.

RESEARCH ACTIVITIES

Bringing speedy modernization to a developing society with minimized, antecedent dysfunctions seems to be the locus of supranational communications, so that priori conditions must be examined. Urbanization as criterion for the measurement of social progress or the degree of modernization is posterior fact, a result but not a cause of modernization.

The crucial matter at present is to determine precisely a set of criteria in the evaluation of a communications system in relation to social, political, and economic development; the employment of the best and most efficient way of exploiting the communications revolution;

constructive use of communications in helping advance developing societies to prosperity and democracy; and reduction or elimination of communications dysfunctions. The research tasks before communication students the world over are enormous, and are no longer adequately handled by the occasional appearance of an article in the Journalism Quarterly, the Journal of Communication, or the Public Opinion Quarterly. Generally, four areas of research activities have been identified: theoretical research, processes research, applied research, and systematic laboratory facilities.

Theoretical Research

A general systems theory of communication applicable to international communications is yet to emerge. Such a theory is both feasible and desirable. It can be formulated, however, only after examination of all possible existing theories, systems and models. Communication problems are generally categorized into three major classes: (1) the technical problem, referring to the physical transfer of any representation, signs, symbols or signals;[42] (2) the semantic problem, dealing with meaning and significance of a communication;[9, 18] and (3) the effectiveness problem[42] dealing essentially with "value," "direction," and the "resultant effects" of a communication. Briefly stated, communications research should be concentrated mainly on three areas: "quantity," "meaning," and "direction."

Quantity, or the amount of information, generally refers to uncertainty,[18] or entropy[42] based largely upon syntactical probability of the words or units of language. Meaning refers to semantic properties

of a sign, or the semantic content of information.[4] "Direction" or "value" of information simply refers to the favorability or unfavorability evoked by a sign, a sign system, or simply a message. It seems appropriate to start with general systems theory[7] to exhaustively evaluate communication theories and models for the building of a set of models. A set of universal communication theories may thus emerge only with the joint efforts of all branches of science.

Microscopic and Macroscopic Research

The next logical step to be taken in supranational communications research is the consideration of carrying out both microscopic and macroscopic aspects of communications research. In other words, neurological, physiological and psychological experiments (microscopic research) must be conducted in conjunction with descriptive studies, group experiments, social surveys, diffusion and observation studies (macroscopic research). Microscopic communications research refers to the studies on information processes of modalities and the central nervous system that require the insight and knowledge of biology, anthropology, neurology, psychology, and physiology. Macroscopic research refers to mass communications studies that incorporate psychology, sociology, political science, economics, history, and philosophy. Efforts must be made to integrate these two major categories of study as closely as possible.

Another area of international communications research lies in the relationship between men and communications media. In this area,

the theory of cybernetics can prove to be of invaluable assistance. As contrasted to the present research on immediate effect of media, the real effort of supranational communications should be directed toward a long-term evaluation of the control of communication. The complicated interactions of various media and man (the communicator and the receiver) over a long period of time must be carefully examined.

The theoretical research activities, and also other research, are therefore information-behaviorally oriented, of a cooperative research nature, but with particular emphasis on research on the development effects and influence of international communications, such as stereotype-formation, attitude change, social development and modernization, seeking a way to understand the phenomena of international communications in order to search for, not a panacea, but the most efficient road leading to promoting international understanding, and to realize the maximum facilitation of modernization and development processes in developing and emerging nations and societies.

STUDIES OF THE FIVE COMMUNICATION PROCESSES

International communications of an educational, scientific, political, social, and technical-commercial nature have been studied extensively. Among many others, Schramm,[40] Deutsch,[12] Lerner,[31] and Pye,[39] have indeed produced some authoritative works on these topics. The main difficulty encountered, as examined from many

studies in international communications research, is again the assessment of the "effectiveness" problem of communications.[42] Most of the works in this area of research are based upon interviews, field survey, and direct or indirect observation. Great contributions to international communications research have been made by these studies; however, the developing processes of mass media, opinion formation, and attitude change requires constant examination and evaluation. Experimental work, in addition to survey, interviews, and observation methods, may offer the hope of shedding some true light upon a number of problems that seem insoluble at the moment, simply because of the lack of continuous data obtained under rigid control.

Communications scholars (Lerner,[31] Klapper,[28] Davison,[11] Deutsch,[12] Pye,[39] Schramm,[40] etc.) have laid the groundwork and set the pattern for future efforts in international communications research. They have explored not only problems of relative effectiveness of different media, communications flow, dissemination and diffusion, but also the developing-modernizing effects of international communications. There seems, however, a lack of system. In the whole communications processes over a long period of time, five processes can be identified: (1) the Kinetic Processes; (2) the Fermentation Processes; (3) the Modernization Processes; (4) the Immunization Processes; and (5) the Selection Processes.[26]

These five processes, which will be treated as subproblem areas, are listed roughly in the order of a communications sequence and development. All are interrelated; from them hundreds of factors and variables can be identified, so that a thorough taxonomical study is called for.

Kinetic Processes

The kinetic theory of communications is derived from kinetics, on the assumption that communications transmitted from the source of information tends to flow to the destination in an inverse relation to the resistance, and in a positive relation with facilitation, when the power of the transmission is held constant. The idealized information flow in kinetics, as if moving over a frictionless surface, suffers no loss or distortion. Human information flows from and to all directions by means of newspapers, magazines, radio, TV, and personal communications, in what is called dissemination and diffusion. Communications thus from a technical point of view obey the kinetic laws, determined by force, distance, and resistance.

The manipulation of kinetics is conceptually simple, i.e., either to increase its force or to reduce its resistance. Its force can be increased by using electronic or modern techniques, in the case of electronic media; utilizing mass production to increase circulation in the case of printed media; and the reduction of resistance can be realized by providing receiver sets or raising the education level of the people to remove the resistance of illiteracy. Both strategies can also be used, employing redundant and multiple channels, using all available media to supplement and complement one another so as to insure the presentation of the medium with the least resistance to information processing for a given individual.

In this country or elsewhere, the development of newspapers and electronic media obviously bear out the kinetic processes of communication; the increase of literacy invariably means increased circulation

of printed media, and the resistance can be removed by using multiple channels or a particular channel that is suitable for the target audience, for instance, radio in India[43] and Thailand[45] and others.

In the kinetic processes, information processing obeys the principle of information theory, i.e., the theorems of entropy, redundancy, ambiguity, and equivocation. A minimum amount of information is required for any organism to survive. In any communication, the loss of information (equivocation) and the introduction of noise, error, and mistakes in information processing are inevitable - a problem area which no diffusion has covered. So redundancy in every language and communicative system serves to ease the processing and to cope with equivocation and noise. But increased redundancy raises the cost of information processing. Ideally, the amount of information that can be transmitted and received should be increased to the relative maximum, whereas redundancy, cost, noise, and equivocation should be kept at the relative minimum, so as to achieve optimal efficiency. Using these principles as a basis, one may devise the most efficient communication system. On the other hand, equivocation (the loss of information in transference) effects and noise, which are as important as, if not more essential than, information, should be systematically examined in terms of their dysfunctions in modernization.

Fermentation Processes

Effects of mass communications are of a pervasive nature, penetrating deep into traditional societies, spreading to masses of people who, prior to the popularization and utilization of mass-produced

newspapers, magazines, and of electronic devices, have traditionally been denied the means of receiving communications from outside sources or of expressing their own opinions on any but an extremely localized level. In addition to assisting economic and social development,[41] mass media have the primary functions of: (1) Motivation: arousing the people to the possibility of the betterment of life, and raising their aspirations for independence or national prestige; (2) Education: enlightening, informing and acculturalizing the people about the world, the society, and the environment; (3) Innovation: introducing and popularizing new techniques of agriculture, industry, health, and sanitation; and (4) Introduction: functioning in many ways as a catalyst in introducing new standards of living, thinking, and behavior. Obviously, the primary functions of communications are not necessarily limited to diffusion and dissemination of information, nor are they restricted to serving as a link between the world outside and the local society or between the elite and the illiterate, the peasant, or the semi-illiterate; or between the government and the governed, as is the case, traditionally.

Awareness of a possible new standard of living and new knowledge of the world induces the desire for a better life. The very knowledge is a restless element that precipitates political and social crises, stimulates demands by the people themselves for a better government, and increases educational opportunities. The discontent and disillusionment brought about by mass communications diffusion and reflected by social injustice in each traditional and transitional

society probably sows the seeds of social turmoil, in what Lerner[31] called the revolution of frustration. Mass communications media, despite some evidence to the contrary, have the amazing capacity to bring about the determination for change, for better or for worse, and to prod the people into taking action to initiate the change they have been stimulated to desire. This is the "Fermentation Process."

The fermentation function of mass communication is an ever-present process; it has been manifested time and again as singularly important, for example, the American Revolution, the anti-Vietnam War sentiments, and the revulsion against ecological pollution. The popularization of radio and television, the increased production capacities of the printed media, and more efficient methods of distribution, in addition to the rising level of education, have vastly accelerated the fermentation processes. In every social upheaval, adjustment, revolution and war, "fermentation" by mass communications or personal communication on a large scale preceded action. It is safe to assume that not mass communications alone, but the fermentation processes instigated by the diffusion and dissemination of new ideas and knowledge carried by mass communications helped bring about social change, revolution or war. It must be noted that mass communications is not the cause but the tool of social revolution or evolution, or international conflict and war.

The fermentation process is basically similar to a biological process. Communications, viewed organically, is merely an organism homeostatically seeking equilibrium after disequilibrium stirred up by the fermentation processes. Its effects in many instances are both destruc-

tive and contructive. How communications under various conditions affect the masses of the people positively or negatively is a question that no sporadic efforts of surveys and studies can fully evaluate. Its answer requires concise, long-term plans, and systematic execution of them. On the other hand, the benefits that result from the improvement and wider diffusion of mass communications far outweigh any communications dysfunctions that might be attendant on the communications development processes. Admittedly, communications in any society, traditional or modern, has never been either entirely good or entirely welcome. For example, communications have disrupted the continuity of traditional society and shattered the patterns of traditional social life, and gradually eroded the existing authority of the family, clan and the privileged classes. Communications also provides for many an "escape" outlet, promotes over-commercialization, and has been known to create mass hysteria in many communicationally advanced nations and societies.

Generally, national aspiration and expectation prompt the information seeking behavior of a society. Man's information seeking is principally motivated by a constant desire for survival or pleasure as manifested by any organism or individual.[48] Man adapts and adjusts to the environment for a better, easier life, or seeking an anti-entropic end, as Wiener interpreted it.

The exchange and intercourse of ideas, knowledge and culture is essentially a communication process with the explicit purpose of

benefitting both of the exchangers; and communication should be oriented toward modernization. In every country or society there exists a variety of mass communications media. Communications everywhere, even in traditional societies, tends to grow and change rapidly. Three general trends stand out: first, in all traditional societies, once mass communications media have taken root, they simply mushroom, increasing and expanding at faster rates; second, once mass communicator media development gains momentum, it quickly reaches the "saturation point," where the people would have the choice not only of media, but also of contents; and third, increasing communication reduces tensions, as the recent U. S. - China relations amply demonstrate. As a result, this brings about a situation enormously complex for researchers to accurately determine and evaluate communications processes and effects. In the fermentation processes, there emerges a potential force pushing forward for changes in family, clan, social, economic and political systems. The resultant manifestation of the fermentation processes is modernization. Thus, fermentation is precedent to modernization.

Modernization Processes

Modernization is here defined as the resultant difference between the traditional society and the full realization of its potential in terms of mobility, urbanization, production, utilities, and education, among many other factors. Despite different terminology applied to the modernization processes, such as Anglicization, Europeanization, or Westernization, the indices for a nation's modernization are usually

based on productive power and living standards. All traditional societies today are in one way or another moving toward modernization. The term "globalization" is sometimes used, and is, as Lerner [31] indicates, closely associated with international communications. The necessary components for modernization may be classified as: (1) a self-sustaining economy, (2) a stable polity, (3) social mobility, and (4) a range of selection for personal advancement.

Modernization is a continuous process, the manifestation of fermentation processes as the result of the ever-increasing Kinetic Processes. Modernization is also a gradual process, which may be expressed in terms of urbanization, literacy, or industrialization. The number of toilets in homes may be a good indicator of modernization. However, modernity cannot be arbitrarily determined by a set of known criteria, even Lerner's essential criterion, "empathy," is hardly applicable universally, for example, China. An objective determinant of modernization with universal applicability seems to be the structure of the communication network. It is needless to expound that a communication network primarily depends upon literacy, high living standard, leisure time, advanced technology, sophisticated professionalism, and developed economy.

In a sense, modernization in terms of mass communications development can be viewed in the S - R, or action-reaction paradigm. Exposure to modern ideas and knowledge, with incubating through the fermentation process, causes the people to take overt or covert action, or both, to enforce the expected change in a desired way.

Action for our purposes is essentially an evaluation problem of the kinetic and fermentation processes. If so, reaction is the modernization process. Both kinetics and modernization are conspicuous, whereas fermentation is not - a parallel situation with the S - R studies, of which one may only speculate what happens inside the black box; however, by thoroughly examining the kinetic and modernization processes, the fermentation processes may thus be known. If the fermentation process is known, modernization can be engineered.

Modernization is manifested in urbanization, literacy, mobility, voting and media participation, empathy,[30] political socialization,[8] achievement norms, well-developed occupational system, and egalitarian class system.[15] It seems, however, the inclination for assimilation is decidedly a major factor in modernization, as the case of Japan[5] has shown, and more recently China. All these seem to be manipulatable.

Immunization Processes

To reduce or render ineffective any communication dysfunction, it must be treated as a contagious disease; immunization in communication must be regarded as an integral part of communication, as it is in the health sciences. Apart from the inoculation effect, the immunization process in communications is a manipulated process with a predetermined end against communication dysfunctions and propaganda. Generally, it aims at the reduction, prevention, or even elimination of the effects of adverse communications, propaganda, and psychological warfare. To help promote international understanding and cooperation in tasks such as environmental protection on a global scale, it is

therefore absolutely essential to systematically study immunization in international communication. The study purpose is aimed at a world less susceptible to propaganda or manipulated campaigns, resulting in a better-informed world citizenry.

Admittedly, truth to one person might be propaganda to another; the difficulty in distinguishing between propaganda and truth should be taken into consideration. The strategy in pursuit of international immunization must be begun with a multi-frontal attack: structural and component analysis, theoretical exploration, method analysis, and communication dysfunction analysis.

Problems in international communication have become increasingly intricate and complex. Dysfunction analysis alone is an area as wide as pathology, which it is needless to say is related to bacteriology, biology, physiology, etc. Furtunately, communication dysfunction analysis can be begun with review of abundant literature on propaganda. A multitude of propaganda theories, techniques, methods, effects, and side-effects (including boomerang) can be categorized and systematized.

In component and structure analysis, the philosophies, religions, norms, values, beliefs, taboos and communication restrictions must be critically examined; even more than the diagnosis and prognosis of a patient in medical science. Such studies can be carried out on a gradual, continuous basis - taking one society at a time, and categorizing them later by region, religion, language, and ethics.

For immunization to have its desired effects, obviously the communicatees to be immunized must be thoroughly known, as evidenced in many experimental studies. The characteristics, personality, dis-

position, political beliefs, and socio-economic position of the immunized, to name a few factors, must be fairly well determined. Then the phenomena of the immunization process and its effects may be known. Due to the very fact that it is relatively new, its effectiveness, duration, and resistance to communications dysfunctions are largely unknown.

Anticipatorily, theoretical exploration presents two even greater problems, an obvious reason for not calling it theoretical formulation. It has taken medical science thousands of years to become an advanced, sophisticated branch of science, but medical practitioners still don't know the cause or cure of the common cold. Almost all immunization studies were intra-cultural studies, and many on cultural truism, similar to the treatment given to only one species. No useful purpose might be served to speculate on the theories of immunization across nations; but general communication immunity is supposed to exist in every culture; therefore, its theoretical exploration ought to be attempted.

Immunization method and technique analysis is comparatively simple, as it involves problems of classification rather than conceptualization, classifying methods and techniques from existing literature. Only at a later stage may new immunization methods and techniques be attempted at international, cross-cultural settings, to ascertain the immunizing effectiveness, duration, and attrition against communication dysfunctions or propaganda.

The international political situation today is particularly germane to the study of immunization. The truth is self-evident: given the natural flow of information without restriction in a frictionless kinetic state (tantamount to the natural environment where germs exist and travel freely), propagation of the truth or diversified opinions might achieve the immunization objective. In this respect, immunization is largely an educational process inspiring the people to seek a better form of life without the inherent communications dysfunctions. Various immunization techniques, methods, and forms which are as a rule derived from laboratory experiments need to be refined so as to be used at a mass and international level.

Selection Processes

Advancing from traditional, to transitional, to modern society, one of the phenomena is the momentum gained in mass communications development as manifested in the multiple channel and multiple media of communications to the audience, and multiple feedback from the audience. When daily information available to a society or individual far exceeds the necessary amount for survival and for amusement, another phenomenon in communications takes place -- an oversupply of information. It can be roughly illustrated by the example of a prisoner of war desperately wanting some news, regardless of its insignificance, as contrasted to the situation of a New Yorker, encountering daily millions of words published in three New York dailies, plus numerous other publications, in addition to radio and television broadcasts.

Bombarded with all sorts of information, man has developed defensive mechanisms that allow him to select information essential to his survival. An oversupply of information is as detrimental as sensory or information deprivation; for instance, no man could survive is his hearing range was 1 - 1,000,000 cycles, or his vision was double his present spectrum. The defensive mechanisms tend also to block information that may be unpleasant, contrary to his basic beliefs, or fear-arousing, among others. As society advances, man's basic needs are met; rarely is information for survival essential in his daily life. Mass communications media have tended to become increasingly instruments for entertainment, amusement, cultural enlightenment, an easy escape route, along with some incidental learning. Indulging in the vicarious experiences provided by mass media, man may reorient himself toward, not survival, but the fulfillment of his hedonistic inclinations instead. Then, communication is simply a source of entertainment or a means of escape.

The very existence of choice is a high mark in communications development, enabling people to select or to reject information in accordance with their different beliefs, tastes, and likings. It can be assumed that individual inertia and public apathy might be removed by providing information in which the fermentation and motivation processes are permitted to work. Selection processes aiming at selective target-audience with selective information may also serve as a supplementary force in fermentation. Selective exposure and selective interpretation in audience behavior have been known for a

long time. Such selectivity on the part of the target-audience can be easily harnessed to work for international understanding. Except for diffusion studies, not too many studies have taken into account such selection processes, particularly selection processes with multi-channel, multi-media, multi-redundant-but-different messages. Studying selection processes is not necessarily interesting or significant to the academic and research community; its importance lies in the fact that media installation and establishment must be designed to reach the optimum level in developing nations so as to incur only necessary expenditure and to employ only essential professionals from the scant pools of funds and talents. By optimum level is meant the complementary and supplementary functions of various media and information, with the least amount of waste.

APPLIED RESEARCH

Systematic Survey Research Labs

Survey and observation have been the standard devices for measuring social and international communications, and occasional cross-cultural and international studies were done in this manner. But the lack of a permanent setup for international social-communication research severely handicapped the coordination and cooperation efforts by researchers the world over. In conducting international field research, it must be noted that the sentiments, taboos and culture of the society under examination must be strictly observed. In the works of Doob, Schramm and Pye, a number of incidents sufficiently demonstrate the

necessity of observing the philosophy, religion, values, and the conceptual differences of the people whose communications behavior is being studied. Therefore, it is advisable to thoroughly study the area before any field research is to be launched.

A permanent establishment of survey setup may very well also undertake the task of collecting information about survey research facilities and personnel in many lands, arranging for and securing cooperation in survey research with universities and colleges elsewhere, and laying down the foundation of a research network throughout the world. Numerous problems will be encountered before such a network is completed. According to the writer's experience in 1972, no university in the communist world even bothered to reply to an inquiry soliciting opinion concerning such an international endeavor in survey, and of the dozen or so countries in Asia, only two replied in the affirmative for cooperation, but without any comments or suggestions.

To solve such difficulties, a few steps might conceivably be taken: first, the SCC should make it known that it is not politically affiliated nor philosophically or ideologically allied with any doctrine, race, creed, caste, or religion, to alleviate or eliminate any suspicion. In many countries, such as Cambodia and Laos, there are no such survey facilities; hence the reason for non-reply. This problem can be tackled only through a long term effort, i.e., training their research professionals and helping to install such facilities. Considerable difficulties have also been met by various researchers working on the international scene; difficulties of translation

and interpretation. For example, there is no way of readily translating such terms as canonical analysis, or analysis of variance, into non-Indo-European languages. A glossary of research terms and communication terminology must be compiled by the Translation division which is to be set up later. Another problem is obvious, the governmental control of universities in many areas of the world, in which case approaching a university directly is hardly productive. The solution of this problem must wait its turn until the SCC has established its credibility, and the United Nations ought to be asked to contribute its efforts.

Administration of such a network is expected to encounter many unseen icebergs. Current social survey methodology, with some modification, may be applied to international communications research. Particular attention must be paid, however, to the interview and sampling techniques, since respondents in other nations seem to have wider differences than do those of the middle class of western countries. Observation methods, interviews and questionnaires in studies of diffusion, dissemination, readership, audience, accessibility, dysfunctions and attitude changes, will be used in field research.

Imaginative use of observation, interview and panel methods has achieved impressive success, particularly in the studies of developing and emerging nations; for example, Lerner's work on Turkish villages, and Doob's study of African societies are more or less the results of close observation and interview. However, the proposed Centers

must go one step beyond, i.e., field research should be a continuous project so that on the basis of data collected from time to time, changes and trends, if any, can be assessed. Preferrably, survey methods should be carried out together with experimental methods.

Observation and interview are particularly suitable for the illiterate and the functional illiterate in developing societies; there is no other way of getting the necessary information from peasants who can neither read nor write. Other demographic data are relatively easy to obtain, i.e., family composition, income, education, personality, social status, mobility, occupation, religious belief, political affiliation and economic well-being. The purpose of SCC research is to establish patterns of the overall communications effect upon all strata of the population. The overall study will seek information such as: communication origination, interpretation, transmission, reception or rejection, retention, fermentation, manifestation in modernization, selection, resultant changes, and so on.

In other words, the recipients of a communication are studied on a behavioral continuum, not only how they process information, but how they react to the new information, what kind of change, permanent or temporary, is produced in attitude, how they utilize the new information, and what its dysfunction is. Again, the overriding emphasis is on the modernization processes, i.e., to seek out the most efficient way of speeding up modernization in various societies.

Systematic Experimental Research Labs

In every discipline of science, there is almost a standard procedure and well-established labs for experimental implementation; however, this is not the case with international communication. Any standard international communication laboratory will be the nemesis of international communication research, as it may very well cause stagnation of research, stifle creative thinking, and produce standardized mediocre findings. However, with the objective of encouraging international experimental research, a systematic experimental laboratory which should be attempted is briefly described. (It will be treated in full in another paper.)

Experimental research must be in some way coordinated with field research, in order that each may substantiate, verify or contradict the findings of the other. In studies of attitude change and motivation, manifestable in behavioral patterns, experimental research may determine the process and magnitude of changes, and the field method may determine this change in terms of meaning and direction. On the other hand, in any experimental situation, which may employ both methodologies, information can be transmitted through different mass communications media to be processed by different modalities, and the content can also be vigorously controlled and manipulated in an attempt to ascertain the processes of change and related effects.

The variation of content and media will be designed to suit the particular local situation and research. Media, such as television, which have not yet fully developed in many countries, can be used in projection studies. Experimental studies in international communications have not yet been attempted by any researchers. Experimental methods may yield more controlled results without the contaminating factors implicit in field survey and observational methods. The foremost concern in international experimental research is to ascertain the long range media effects, particularly television effects, upon modernization processes in societal and individual behavioral patterns. Combining both survey research and experimental research, the gradual behavioral changes as influenced by media can thus be known and recorded. The imperative of such studies can be seen from the lack of data to compare the TV generation and the generation before it.

Question has been raised as to the feasibility of the integration of experimental and field studies. The necessity of such a marriage is made clear by Hovland[23] and the Social Science Research Council.[44] Simultaneous execution of experimental and field studies may offer the best research method and theory in communications science. Each of the methods would presumably check the accuracy of the predictions of the other, and in the meantime supplement the other so as to afford more, if not the most, reliable research results. "Of course, neither is a royal road to wisdom, but each represents an important emphasis. The challenge of future work is one of fruitfully combining

their virtues so that we may develop a social psychology of communication....." [23]

The social psychology of communications can be illustrated by studies of group structure and behavior, exemplified by the Glanzer and Glaser studies,[19] which essentially are experimental studies in a social setting. The integration of experimental and field studies may further the notion of microscopic and macroscopic studies. The importance of the wedding of microscopic and macroscopic studies can be singularly manifested: communication studies, imperatively, must study not only the interactions of men, groups and societies, but also the very source of interactions; this calls for microscopic studies on physiological and neurophysiological levels. Hence, a sound approach to communications research is the integration of experimental and field studies, and that of microscopic and macroscopic studies. In many locations throughout the world, experimental communications research is feasible; for example, in Hong Kong, Lebanon, Singapore, Lagos, etc. At a later stage, it should be implementable elsewhere.

The purpose of such an elaborate network of survey and experimental labs is to facilitate research efforts throughout the world. To realize the imperative of such a task, one needs only contemplate the ease of carrying out supranational communication or social studies when such a network is completed: directives for any survey or experiment need only be sent out to various cooperative centers around

the world, and survey and experiment returns completed. The directives would specify characteristics of subjects, experimental or survey procedure and administration, testing environment, appliances and instruments, size of sample, data format, questionnaire or test, etc.

Systematic Promotion of International Understanding

When the SCC (Central) organization is completed and all developmental, research, and dissemination activities are in full operation, the SCCs must pay exclusive attention to the promotion of international understanding. At this stage, it is too early to work out any plans as to how to promote international understanding and to assure world order and world peace through communication; however, a number of preliminary steps might be taken to facilitate supranational communication:

(1) Approach all governments in the world to explore the feasibility of organizing a cooperative communication research institute.

(2) Approach the leading universities and colleges in each and every nation to elicit their thoughts on the institute.

(3) Urge all governments to grant more freedom to supranational communication flow and dissemination.

(4) Encourage all persons concerned with world peace and international understanding to contribute their thoughts and ideas to the formation of such an institute.

(5) Begin with a well-designed world-wide publicity campaign to promote the institute with the ultimate objective of starting a world-wide movement of "Supranational Communications."

(6) Request the United Nations to designate a certain day or week of the year as the "Supranational Communications" Day or Week.

(7) Seek, build or fortify avenues of supranational communications, beginning with non-political information such as technological and health news, and gradually moving into the flow of "human interest" news. All information generated and disseminated should be of apolitical, non-religious, non-racial, and non-controversial nature. Only after the objective conditions of a nation are fairly well ascertained might some controversial issues be introduced.

All these steps by no means exhaust the possibilities for promoting international understanding. Our primary concern is to initiate the center, to guide the movement with research findings, and to put into practice tested ideas. This is an area full of difficulties and challenge, but one need not despair about the complexity of international understanding as Merrill[35] did: "It can never really be brought about by nations (or organizations therein) attempting to improve their 'images' in other countries." That's hardly true. Substantial evidence has demonstrated that an increasing amount of communication enhances understanding and tolerance.

Unification Communications Terminology and Taxonomical Study of Communications

The seemingly chaotic state of mass communications research is partly due to the different nomenclature used in communications re-

search which borrows heavily from every branch of science. In addition, controversial findings in communications research result in large part from diversified research conditions and different interpretations. One of the major tasks to be undertaken is to strive for uniformity in communications terminology and nomenclature.

The task is understandably formidable even for the largest of research organizations; but its pioneering work can be done in the second year of the Center's operation, work such as collection of all research findings and nomenclature for the initiation of a taxonomical study of communication. Computer storage and retrieval systems may be attempted later. Eventually, a dictionary of communications terms may be compiled, and the research findings concisely presented, such as the work of Berelson and Steiner.[6]

DISSEMINATION ACTIVITIES

Many research institutes have no outlets of their own for the dissemination of research findings, and depend entirely upon current scholarly journals as their dissemination outlets. Thus, the delay of information dissemination is unavoidable, the diffusion is restricted to the subscribers, and there is too much duplication of effort. To facilitate speedy dissemination, proposed Centers should have their own editorial staff, and primitive duplicating and reprinting facilities, and there should probably be a contracted printing shop for the SCC Monthly and SCC Monographs.

The proposed Centers would distribute information concerning the research and development activities for two purposes: (1) to avoid the cost and effort of duplicate research on the same topic being conducted by other research institutes; and (2) to invite suggestions, comments, and criticism from the international community, and to arouse public interest in the Centers' research objectives and activities. For each research project, a summary of the initial and intermediate reports and the complete form of the final reports would be duplicated for distribution.

Publication of Monograph, Monthly Bulletin, and Related Research Topics and Activities

In the beginning, publications will be distributed free to major communications research institutes of the world. These publications concerning the Centers' research, development and dissemination activities preferrably will appear in printed form, but mimeographed reports in the news-letter form will be adequate in the first stage of the Centers' development.

The Monthly Bulletin is not necessarily to be restricted to research findings. Generally, in addition to information concerning the Centers' activities, the monthly publications will include: indexed research data including population, economic, political, and social data, and also growth figures, and/or the rate of change as compared with the past, along with mention of various services provided by the SCCs. The Monograph is designed mainly to publish research findings to the SCCs. In the first few years, the Monograph is to be published no more than four times annually.

Counseling Service and Contracted Research Service

The Centers' research facilities and services are to be made available to any bona fide organization, research institute, and government. Information will be sent anywhere upon request. Furthermore, SCCs shall provide counseling service for any organization, on the condition that research findings under whatever conditions shall become public property.

In the meantime, SCCs will also provide contracted research services. In other words, SCCs will receive research assignments for any research organization which does not have the research facilities in a particular region covered by a SCC. The contracting research organization shall provide in detail the research procedure, subjects, data, methodology of analysis, and other specifications. Any contracted assignment is to be charged on the cost-plus basis. In this way the facilities and services of the Centers would be available to a large body of users. In each region, any established higher learning institute would be welcome to participate in the Centers' development. Coordinated work with educational institutions is desirable, and their participation may facilitate research and development activities of the Centers.

Other Dissemination Activities

SCCs keep the international community continuously informed of their services, and solicit comments, suggestions, and criticism.

They also provide:

(1) Distribution of microfilm and recording services at cost upon request.

(2) Counseling service for any government or society concerning development of mass communications media and modernization by means of mass communications.

(3) Contracted research service for any bona fide research and academic institute to conduct on-the-spot social surveys or experiments on condition that any research findings automatically be channeled into the public domain.

ORGANIZATION

The organizational purpose of SCCs is to provide an optimal amount of direction of the activities of the Centers, and in the meantime to afford the optimal latitude of freedom to the Centers' staff participants of different disciplines. These objectives are congruent with the ideals and practices of all researchers and major universities in cross-cultural research and interdisciplinary studies.

Executive Committee

Coordinating with the Planning, Resources and Finance, Research, and Development Committees, the major functions of the Executive Committee, chaired by the executive director, are to initiate and sustain a unified, cooperative research and development operation toward

the implementation of all objectives of the SCCs, to formulate policies regarding research, development and dissemination, and to endorse staff assignments. Actual administrative duties in connection with research, development, and dissemination will be vested in the executive director. The membership of the Executive Committee is:

_____

_____

_____

_____

Advisory Board

An interdisciplinary advisory board is to be set up for the purpose of coordinating interdisciplinary, cooperative research in international communications. Individual members of the Advisory Board will be distinguished professors and scholars in international communications research and other related areas. They are requested to provide guidance and oversee research, development, and dissemination activities on the Centers, and to promote interdepartmental cooperation and aid in recruiting high-level, competent personnel.

Members:

_____

_____

_____

_____

Inter-Agency Consultants

The team of inter-agency consultants will facilitate cooperation between the proposed Centers and various activities of related agencies and research institutes.

Personnel

A. Co-Directors: The Co-Directors will assume full responsibility for the overall conduct and activities of the Centers; one in charge of administrative and developmental work in the United States and the establishment of overseas SCCs, the other in charge of research and dissemination activities. A desirable development in the future will be that one director will reside in the headquarters (SCC, Central) in the United States, while the other is charged with setting up Centers and cooperating with higher educational institutes in other regions of the world.

B. Two Administrative Assistants: The administrative assistants will take care of matters in connection with routine operating affairs of the Centers.

C. Faculty Members: Four half-time professors will conduct research, development and dissemination activities for the first year

of the Centers' operation. The number of faculty drawn from various departments of the University will increase in proportion to the Centers' activities.

D. Publications Editor and Advisor: The publications director and advisor will prepare a monthly bulletin, release information to other research institutes, the press, radio and TV, and assist members of the Centers' staffs with publications and dissemination of research findings. He will also be in charge of public relations.

E. Senior Research and Development Associates: The senior research associate is a recent Ph. D., or one near completion with competence in research in the laboratory, in field survey, and well-versed in international relations and communications. The research associate will assume primary responsibility with a professor for the conduct of basic or applied, microscopic, or macroscopic research.

F. Research Assistant: The half-time research assistant will help the research associate and the professor in carrying out research, development, and dissemination activities. The research assistant, who is also a graduate student in either the United States or the particular region where a SCC is to be located, will take one-half to a full load of course-work and assist with research for 20 hours per week.

G. Secretaries and Clerks: Each secretary and clerk will perform the usual secretarial work and duties, as well as coding, filing, and compiling data.

Budget

Information on the budget will be furnished on request.

REFERENCES

1. Anastasi, A. Differential Psychology, (New York: MacMillan, 1958)

2. Attneave, F. Application of Information Theory to Psychology, (New York: Henry Holt, 1959)

3. Ayer, A. J. "What is Communication?" in Ayer (ed.) Studies in Communications, (London: Martin Secker & Warburg, 1955), 11-18.

4. Bar-Hillel, Y., and Carnap, R. "Semantic Information," British Journal of Philosophy Science, 1953, 4, 147-157.

5. Bennett, J. W. "Tradition, Modernity and Communalism in Japan's Modernization," Journal of Social Issues, 1968, 24, 25-44.

6. Berelson, B. & Steiner, G. A. Human Behavior: An Inventory of Scientific Findings, (New York: Harcourt, Brace & World, 1964)

7. Bertalanffy, L. von General Systems Theory: Foundations, Development, Applications, (New York: George Braziller, 1968)

8. Chaffee, S. H., Ward, S. S. & Tipton, L. P. "Mass Communication and Political Socialization," Journalism Quarterly, 1970, 47, 647-659.

9. Cherry, C. On Human Communications, (New York: Wiley, 1957, Science Education, 1961)

10. Cieutat, V. J. "Sex Differences in Variable Operant Conditioning," Psychological Report, 1964, 15, 259-275.

11. Davison, W. P. International Political Communication, (New York: F. A. Praeger, 1965)

12. Deutsch, K. W. Nationalism and Social Communication, (New York: Wiley, 1953)

13. Doob, W. Communication in Africa: A Search for Boundaries, (New Haven: Yale University Press, 1961)

14. Exline, R. V. "Effects of Need for Affiliation, Sex, and the Sight of Others upon Initial Communication in Problem-Solving Groups," Journal of Personality, 1962, 30, 541-556.

15. Fagen, R. R. Politics and Communication, (Boston: Little, Brown, 1966)

16. Festiger, L. A Theory of Cognitive Dissonance, (New York: Row, Peterson, 1957)

17. Fischer, Heinz-Dietrich "Forms and Functions of Supranational Communication," in H. Fischer and J. C. Merrill (eds.) International Communication, (New York: Hasting House, 1970, 5-14)

18. Garner, W. R. Uncertainty and Structure as Psychological Concepts, (New York: Wiley, 1962)

19. Glanzer, M. & Glaser, R. "Techniques for the Study of Group Structure and Behavior: I. Analysis of Structure," Psychological Bulletin, 1959, 56, 317-332.

Clanzer, M. & Glaser, R. "Techniques for the Study of Group Structure and Behavior: II. Empirical Studies of the Effects of Structure in Small Groups," Psychological Bulletin, 1961, 58, 1-57.

20. Hovland, C. I., Lumsdaine, A. A. & Sheffield, F. D. Experiments on Mass Communication, (New Jersey: Princeton University Press, 1953)

21. Hovland, C. I., Janis, I. L., & Kelley, H. H. Communication and Persuasion, (New Haven: Yale University Press, 1953)

22. Hovland, C. I. "Effects of the Mass Media of Communication," in Lindzey, G. (ed.) Handbook of Social Psychology, (Massachusetts: Addison & Wesley, 1954), 1062-1104.

23. Hovland, C. I. "Reconciling Conflicting Results Derived from Experimental and Survey Studies of Attitude Change," American Psychologist, 1959, 14, 8-17.

24. Hovland, C. I. & Janis, I. L. (eds.) Personality and Persuasibility, (New Haven: Yale University Press, 1959)

25. Hovland, C. I. & Rosenberg, M. J. (eds.) Attitude Organization and Change, (New Haven: Yale University Press, 1960)

26. Hsia, H. J. "Towards a General Theory of International Communication," North Dakota Journal, 1969, 37, 7-19.

27. Klapper, J. T. "The Comparative Effects of the Various Media," in Schramm, W. (ed.) The Process and Effects of Mass Communication, (Urbana: University of Illinois Press, 1961), 91-106.

28. Klapper, J. T. "Mass Communication Research: An Old Road Resurveyed," Public Opinion Quarterly, 1963, 27, 515-527.

29. Lasswell, H. D. "The Structure and Function of Communication in Society," in Bryson, L. (ed.) The Communication of Ideas, (New York: Institute for Religious and Social Studies, 1948)

30. Lerner, D. The Passing of Traditional Society, (New York: Free Press, 1958)

31. Lerner, D. "Toward a Communication Theory of Modernization," in Pye, L. W. (ed.) Communications and Political Development, (New Jersey: Princeton University Press, 1964)

32. Lerner, D. "Frontiers of International Communication," a speech given at the symposium honoring Professor Ralph O. Nafziger, at the University of Wisconsin, Madison, Wisconsin, 1966.

33. Marston, A. R. & Levine, E. M. "Interaction Patterns in a College Population," Journal of Social Psychology, 1964, 62, 149-154.

34. McGuire, W. J. "Inducing Resistance to Persuasion: Some Contemporary Approaches," in Berkowitz, L. (ed.) Advances in Experimental Social Psychology, (New York: Academic Press, 1964)

35. Merrill, J. C. International Communication, (New York: McGraw-Hill, 1951)

36. Miller, K. A. & Barwind, J. A. "HIRC" A Plan for Retrieval and Evaluation of International Research. Paper presented at International Communication Association, Phoenix, Arizona, 1971.

37. Osgood, C. E., & Tannenbaum, P. H. "The Principle of Congruity in the Prediction of Attitude Change," Psychological Review, 1955, 62, 42-55.

38. "A Preliminary Bibliography of Communication and the Development of Nations," a Michigan State University Study, East Lansing, Michigan, 1966.

39. Pye, L. W. (ed.) Communications and Political Development, (New Jersey: Princeton University Press, 1964)

40. Schramm, W. Mass Media and National Development, (California: Stanford University Press, 1964)

41. Schramm, W. "Communication and Change," in D. Lerner and W. Schramm, (eds.) Communication and Change in Developing Countries, (Honolulu: East-West Center Press, 1967), 5-32.

42. Shannon, C. E. & Weaver, R. The Mathematical Theory of Communication, (Urbana: University of Illinois Press, 1949)

43. Sitaram, K. S. "Effects of Radio Upon the Rural People of India," paper presented at International Communication Association conference, Minneapolis, Minnesota, 1970.

44. Social Science Research Council, "Narrowing the Gap Between Field and Laboratory Experiments in Social Psychology," Item, 1954, 8, 37-42.

45. Story, J. H. & Story, J. H. "A Target Audience: The Hill Tribes of Northern Thailand," paper presented at the International Association Conference, Phoenix, Arizona, 1971.

46. Weiss, W. "Emotional Arousal and Attitude Change," Psychological Report, 1960, 6, 267-280.

47. Wiebe, G. D. "Responses to the Televised Kefauver Hearings: Some Social Psychological Implications," Public Opinion Quarterly, 1952, 16, 179-200.

48. Wiener, N. Cybernetics: Or Control and Communication in the Animal and the Machine, (New York: Wiley, 1948)

49. Wittenborn, J. R. "Psychotic Dimensions in Male and Female Hospital Patients," Journal of Neurological & Mental Disease, 1964, 138, 460-467.